

**From:** Victoria Binetti/R3/USEPA/US  
**Sent:** 12/13/2011 6:52:15 AM  
**To:** Jennie Saxe/R3/USEPA/US@EPA  
**CC:**  
**Subject:** Fw: new table

Meant to forward this to you yesterday.--Vicky

Victoria P. Binetti  
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----- Forwarded by Victoria Binetti/R3/USEPA/US on 12/13/2011 06:51 AM -----

**From:** "Daniels, Lisa" <ldaniels@pa.gov>  
**To:** Linda Boornazian/R3/USEPA/US@EPA, Victoria Binetti/R3/USEPA/US@EPA  
**Cc:** "Heffner, Kelly" <kheffner@pa.gov>, "Adams, Duke" <ranadams@pa.gov>, "Devaney, Michele" <mdevaney@pa.gov>  
**Date:** 12/12/2011 09:04 AM  
**Subject:** RE: new table

Linda and Vicky,

Thank you for the information regarding the updated risk assessment tables as they relate to the Dimock private well situation. I have some questions about how EPA is using the tables to determine "immediate health threats to users" – which I believe is the benchmark for taking action as per your emergency powers authority under the SDWA.

PADEP has done quite a bit of work determining/compiling acute (i.e., immediate) health risk levels for contaminants and water treatment chemicals. These acute risk levels are used to determine when a water supply warning (i.e., boil water advisory, do not consume notice, do not use notice) is needed. For contaminants, PADEP uses EPA's published Health Advisories (one-day and ten-day health advisories) as per the *2011 Edition of the Drinking Water Standards and Health Advisories (EPA 820-R-11-002)*. In fact, the use of these HAs (as acute risk levels) were recommended to us by EPA Region 3 staffers. Please note, the one-day and ten-day health advisories are protective of a 10-kg child. For water treatment chemicals, PADEP is working with NSF and other states to determine and compile acute risk levels for chemical overfeed situations.

For the metals of interest in Dimock (Arsenic, Manganese, Iron and Aluminum), here is the acute risk level information that we have:

- Arsenic (MCL = 0.010 mg/L or 10 ug/L):
  - As per EPA's 2011 HA guidance, no one-day or ten-day HAs are provided.
  - The following acute risk levels were provided to MD this year by EPA for a MHP contamination case – acute risk levels for infants = 55 ug/L, for adults = 175 ug/L, with death occurring at 675 ug/L.
- Manganese (Secondary MCL = 0.05 mg/L or 50 ug/L):
  - As per EPA's 2011 HA guidance, one-day and ten-day HAs = 1 mg/L (1,000 ug/L)
- Iron (Secondary MCL = 0.3 mg/L or 300 ug/L):
  - As per EPA's HA guidance, no one-day or ten-day HAs are provided.
  - As per NSF's assessment of acute risk levels for Ferric Chloride, the "Do Not Consume" limit for Iron = 60 mg/L (60,000 ug/L)

- Aluminum (Secondary MCL = 0.2 mg/L or 200 ug/L)
- As per EPA's HA guidance, no one-day or ten-day HAs are provided.
- As per NSF's assessment of acute risk levels for Aluminum Sulfate and Polyaluminum Chloride, the "Do Not Consume" limit for Aluminum = 100 mg/L (100,000 ug/L)

It is unclear to me whether the numbers that you provided in the updated risk assessment tables are for acute or chronic health effects. Here are the numbers from the tables for the metals of concern:

- Arsenic = 4.7 ug/L
- Manganese = 380 ug/L
- Iron = 11,000 ug/L
- Aluminum = 16,000 ug/L

Based on the information that we have, I suspect the numbers from the tables are for chronic health effects. Chronic health effects levels do not pose immediate health threats to users and would most likely not meet EPA's benchmark for taking emergency action. I would also have a hard time understanding how EPA could say that an Arsenic level below the current MCL represents an "immediate health threat to users".

I would appreciate being kept in the loop regarding how EPA intends to use the updated risk assessment tables for private water supplies. Your decisions may impact how we apply MCLs and Health Advisories to PWSs.

Thank you – Lisa

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Notice: On \*\*Friday, July 29th\*\*, the commonwealth will be adding @pa.gov as the primary email domain for all state employees. For example: [ldaniels@state.pa.us](mailto:ldaniels@state.pa.us) will now be [ldaniels@pa.gov](mailto:ldaniels@pa.gov). The email addresses ending in @state.pa.us will continue to function so that emails will never be interrupted. We appreciate your cooperation as we take a small step to increase the usability and consistency of the commonwealth's online communications.

**From:** Boornazian.Linda@epamail.epa.gov [mailto:Boornazian.Linda@epamail.epa.gov]  
**Sent:** Friday, December 09, 2011 3:31 PM  
**To:** Daniels, Lisa  
**Subject:** new table

[http://www.epa.gov/reg3hwmd/risk/human/rb-concentration\\_table/Generic\\_Tables/index.htm](http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/Generic_Tables/index.htm)

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